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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,793	08/24/2001	Donald L. Nisley	01RE025 (DODG:0044)	2159

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EXAMINER

TORRES, MELANIE

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,793

Applicant(s)

NISLEY ET AL

Examiner

Melanie Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-26 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not provide antecedent basis for the “single-stage” rotating seal.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7, 12-17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Grzina.

Re claim 1, Grzina discloses a bearing insert (8), a bearing housing (9) adapted to house the bearing insert, a cover (6) removably secured to the bearing housing, wherein the cover extends outwardly beyond an outermost edge of the bearing housing and a rotatable flinger (3) secured to the cover outwardly beyond the outermost edge of the bearing housing and configured to form a single-stage rotating seal, the rotatable flinger comprising a first opening being adapted to receive a rotatable shaft (7) and to enable the rotatable flinger to form a compression seal against the rotatable shaft and an outer flange disposed external to the cover to fling material that comes into contact

Re claim 2, Grzina discloses wherein the rotatable flinger has an inner flange, the inner and outer flanges having a greater diameter than a second opening through the cover, the inner and outer flanges cooperating with a portion of the cover surrounding the second opening to secure the rotatable flinger to the cover.

Re claim 3, Grzina discloses wherein the inner flange is smaller in diameter than the outer flange. (See above)

Re claim 4, Grzina discloses a grease relief to enable grease within the bearing assembly to pass to a location exterior of the bearing assembly.

Re claim 7, Grzina discloses wherein the bearing insert comprises a plurality of roller bearings.

Re claim 12, Grzina discloses wherein the cover is adapted to form an interior volume when secured to the bearing housing.

Re claim 13 Grzina discloses a sealing assembly for forming a seal between a bearing assembly and a rotatable shaft, comprising: a cover (6) removably securable to a bearing housing (9), wherein the cover is disposed on the exterior of the bearing housing; and a rotatable member (3) securable to the cover and adapted to receive the rotatable shaft (7) therethrough, the rotatable member being configured to form a seal against the rotatable shaft and to rotate therewith to fling liquids or solids that come into contact with the rotatable member away from the cover.

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Re claim 14, Grzina discloses wherein the sealing assembly is adapted to form a rotating seal between the rotatable member (3) and the cover (6).

Re claim 15, Grzina discloses wherein the rotatable member (3) comprises an inner flange and an outer flange, the inner and outer flanges being disposed on opposite sides of the cover to secure the rotatable member to the cover. (See above)

Re claim 16, Grzina discloses wherein the inner and outer flanges are circular, the outer flange being larger in diameter than the inner flange.

Re claim 17, Grzina wherein the grease forms a seal between the rotatable member (3) and the cover (6).

Re claim 21, Grzina discloses wherein the cover (6) comprises a rigid plate.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-4, 7, 12-17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Hatch.

Re claims 1-4, 7, 12-17 and 21, Grzina discloses a bearing insert (8), a bearing housing (9) adapted to house the bearing insert, a cover (6) removably secured to the bearing housing, wherein the cover extends outwardly beyond an outermost edge of the bearing housing and a rotatable flinger (3) secured to the cover outwardly beyond the outermost edge of the bearing housing, the rotatable flinger comprising a first opening being adapted to receive a rotatable shaft (7) and to enable the rotatable flinger to form a compression seal against the rotatable shaft and an outer flange disposed external to the cover to fling material that comes into contact with the outer flange away from the bearing assembly. However, Grzina does not teach wherein the flinger is a single-stage rotating seal. Hatch et al. teach wherein a rotating seal is a single stage. (Figures 2-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the single stage of Hatch et al. in place of the double stage of Grzina since applicant has not disclosed that a single stage solves any stated problem or is for any particular purpose and it appears the seal would perform equally well with a variety of stages.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Tripathy.

Re claim 6, Grzina does not teach wherein the bearing insert comprises a plurality of ball bearings. Tripathy teaches a bearing assembly comprising a bearing insert (16) with a plurality of ball bearings. It would have been obvious to one of ordinary skill in

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the art at the time the invention was made to have used a ball bearing in place of Grzina's roller bearing since both elements are well known in the art for facilitation the rotation of a shaft in a system.

7. Claims 8, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina as modified and as applied above in view of Motsch.

Re claims 8, and 19-21, Grzina as modified does not teach wherein the cover comprises a peripheral flange and the bearing housing comprises an annular groove, wherein the cover is secured to the bearing housing by elastically deforming the cover to position the peripheral flange within the annular groove. Motsch teaches wherein a cover (28) comprises a peripheral flange and the bearing housing comprises an annular groove (29, 30), wherein the cover (28) is secured to the bearing housing by elastically deforming the cover to position the peripheral flange within the annular groove. It would have been obvious to have used the attaching means of Motsch in the invention of Grzina as a elastically deforming a cover to position the peripheral flange with the annular groove (snap attachment) is a well known alternate equivalent means for attaching two components that is well known in the art and would reduce the number of parts (such as bolts used in Grzina).

8. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Tooley.

Re claim 9, Grzina does not teach an external sealing member positionable adjacent the bearing housing and the cover to form a seal between the bearing housing

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and the cover. Tooley teaches an external sealing member (52) positionable adjacent the bearing housing and the cover to form a seal between the bearing housing and the cover. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the seal of Tooley in the apparatus of Grzina in order to provide additional sealing means against debris in the bearing assembly.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Tooley.

Re claim 10, Grzina does not teach wherein the bearing assembly further comprises a second cover and a second rotatable flinger secured to the second cover to form a seal between the bearing assembly and the shaft, the second cover and second rotatable flinger being disposed opposite the first cover and the first rotatable flinger on the bearing housing. Tooley teaches a bearing assembly further comprises a second cover and a second rotatable flinger secured to the second cover to form a seal between the bearing assembly and the shaft, the second cover and second rotatable flinger being disposed opposite the first cover and the first rotatable flinger on the bearing housing. (Fig. 2) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a second seal/cover assembly opposite the first assembly so as to protect the internal components of the apparatus from both ends of the housing.

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10. Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Uhen.

Re claims 5 and 18, Grzina does not teach a sealing assembly comprising a grease relief in a flange. Uhen teaches a sealing assembly (90) comprising a grease relief (118). It would have been obvious to one of ordinary skill in the art to have applied the teachings of Uhen to the assembly of Grzina in order to relieve excess grease from accumulating in the seal.

Allowable Subject Matter

11. Claims 22-26 are allowed.

Response to Arguments

12. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Torres whose telephone number is (571)272-7127. The examiner can normally be reached on Monday-Friday, 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571)272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MT

October 12, 2005

Melanie Torres

Melanie Torres
Primary Examiner

10-12-05